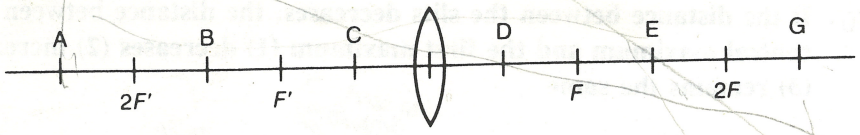
SCRAP

23-27. Base your answers to Questions 23 through 27 on the diagram, which represents a converging (convex) lens whose principal focus is at *F*.



23. An object placed at $2F'$ will produce an image at (1) F (2) $2F$ (3) E (4) D

24. If an object is placed at point *C*, the resulting image is (1) real and smaller than the object (2) real and larger than the object (3) virtual and smaller than the object (4) virtual and larger than the object

25. An object placed 0.060 meter to the left of the lens produces an image 0.030 meter to the right of the lens. What is the focal length of the lens? (1) 0.015 m (2) 0.020 m (3) 0.20 m (4) 0.50 m

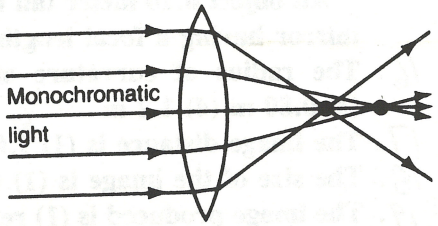
26. As an object is moved from *A* to *B*, the size of the image (1) decreases (2) increases (3) remains the same

27. As the size of an object placed at point *A increases*, the size of the image (1) decreases (2) increases (3) remains the same

28. For which color is the focal length of this lens greatest? (1) red (2) yellow (3) green (4) blue

29. It is observed that a spectrum surrounds an object's image produced by white light passing through a converging lens. This phenomenon is (1) diffraction (2) total internal reflection (3) spherical aberration (4) chromatic aberration

30. The phenomenon illustrated in the diagram at the right is
(1) chromatic aberration
(2) spherical aberration
(3) dispersion
(4) diffraction



31. As the size of the object placed before a convex lens decreases, the focal length of the lens (1) decreases (2) increases (3) remains the same

32. An object is located 0.02 meter from a converging lens having a focal length of 0.03 meter. As the object is moved closer to the lens, the size of its image will (1) decrease (2) increase (3) remain the same

33. Which of the following is true of the focal length and image distance of a diverging lens? (1) Both are positive. (2) Both are negative. (3) Focal length is positive and image distance is negative. (4) Focal length is negative and image distance is positive.